

## ABSTRACT OF THE DISCLOSURE

A biomedical member having high strength, high toughness and high hardness and an artificial joint that uses the same are provided. In addition, a biomedical member that exhibits high wear resistance even in in vivo environment and an artificial joint are provided.

Such a composite ceramic is used that contains 65% by weight or more  $\text{Al}_2\text{O}_3$ , 4 to 34% by weight of  $\text{ZrO}_2$  and 0.1 to 4% by weight of  $\text{SrO}$ , while Sr forms a solid solution with part of the  $\text{ZrO}_2$  grains. The composite ceramics further contains  $\text{TiO}_2$ ,  $\text{MgO}$  and  $\text{SiO}_2$  as sintering additives, while controlling the amounts to 0.20% by weight or more  $\text{SiO}_2$ , 0.22% by weight or more  $\text{TiO}_2$  and 0.12% by weight or more  $\text{MgO}$ , and the total amount of  $\text{SiO}_2$ ,  $\text{TiO}_2$  and  $\text{MgO}$  within a range from 0.6 to 4.5% by weight.